

What Is Claimed Is:

- 5           1.       A head suspension for supporting a head slider over a disk surface in a rigid disk drive, the head suspension including a load beam having a mounting region, a rigid region and a spring region located between the mounting region and rigid region, the head suspension comprising a shock limiter formed of the same piece of material as the spring region of the load beam, the shock limiter limiting movement of the head suspension away from the disk surface due to impact loading.
- 10           2.       The head suspension of claim 1, wherein the spring region of the load beam includes an opening, and wherein the shock limiter comprises a cantilevered portion formed within the opening.
- 15           3.       The head suspension of claim 2, wherein the shock limiter overlaps a portion of the head suspension and the shock limiter contacts the overlapped portion of the head suspension upon movement of the head suspension away from the disk surface.
- 20           4.       The head suspension of claim 3, wherein the head suspension includes a flexure and the overlapped portion of the head suspension comprises a portion of the flexure.
- 25           5.       The head suspension of claim 4, wherein the cantilevered portion includes at least one bend creating the overlap with the overlapped portion of the flexure.
6.       The head suspension of claim 3, wherein the overlapped portion of the head suspension comprises a portion of the load beam.

7. The head suspension of claim 6 wherein the cantilevered portion includes at least one bend creating the overlap with the overlapped portion of the load beam.

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8. The head suspension of claim 3, wherein the cantilevered portion includes at least one bend creating the overlap with the overlapped portion of the head suspension.

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9. The head suspension of claim 3, wherein the head suspension includes a base plate attached to the load beam at the mounting region, and the overlapped portion of the head suspension comprises a portion of the base plate.

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10. The head suspension of claim 9, wherein the cantilevered portion includes at least one bend creating the overlap with the overlapped portion of the base plate.

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11. A load beam for a head suspension that supports a head slider over a disk surface in a rigid disk drive, the load beam comprising a single piece of material including:

a mounting region;

a rigid region;

a spring region located between the mounting and rigid regions;

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and

a shock limiter adapted to contact a portion of the head suspension upon movement of the head suspension relative to the disk surface due to impact loading.

12. The load beam of claim 11, wherein the shock limiter limits movement of the rigid region of the load beam away from the disk surface due to impact loading.

5                   13. The load beam of claim 11, wherein the spring region includes an opening and wherein the shock limiter comprises a cantilevered portion formed within the opening.

10                   14. The load beam of claim 13, wherein the shock limiter overlaps a portion of the load beam and the shock limiter contacts the overlapped portion of the load beam upon movement of the load beam toward the shock limiter.

15                   15. The load beam of claim 14, wherein the shock limiter includes at least one bend creating the overlap with the overlapped portion of the load beam.

20                   16. The load beam of claim 13, wherein the shock limiter overlaps a portion of a head suspension that includes the load beam, and wherein the shock limiter contacts the overlapped portion of the head suspension upon movement of the head suspension toward the shock limiter.

25                   17. The load beam of claim 16, wherein the head suspension includes a flexure, and wherein the overlapped portion of the head suspension comprises a portion of the flexure.

18. The load beam of claim 17, wherein the shock limiter includes at least one bend creating the overlap with the overlapped portion of the flexure.

19. The load beam of claim 16, wherein the shock limiter includes at least one bend creating the overlap with the overlapped portion of the head suspension.

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20. The load beam of claim 16, wherein the head suspension includes a base plate attached to the load beam at the mounting region, and the overlapped portion of the head suspension comprises a portion of the base plate.

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21. The load beam of claim 20, wherein the shock limiter includes at least one bend creating the overlap with the overlapped portion of the base plate.

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22. A head suspension for supporting a head slider over a disk surface in a rigid disk drive, the head suspension including a load beam having a mounting region, a rigid region and a spring region located between the mounting region and rigid region, the head suspension comprising a shock limiter formed of the same piece of material as the spring region of the load beam, the shock limiter including at least one bend creating an overlap with a portion of the head suspension to limit movement of the head suspension away from the surface of the disk.

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23. A head suspension for supporting a head slider over a disk surface in a rigid disk drive, the head suspension including a load beam having a mounting region, a rigid region and a spring region located between the mounting region and rigid region, the head suspension comprising a shock limiter formed of the same piece of material as the spring region of the load beam, the shock limiter being adapted to contact the rigid region to limit movement of the rigid region relative to the mounting region.

24. The head suspension of claim 23 wherein the shock limiter limits movement of the rigid region of the load beam away from the disk surface due to impact loading.

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25. A head suspension for supporting a head slider over a disk surface in a rigid disk drive, the head suspension including a load beam having a mounting region, a rigid region and a spring region located between the mounting region and rigid region, the head suspension comprising a shock limiter formed of the same piece of material as the spring region of the load beam, the shock limiter being adapted to contact the mounting region to limit movement of the rigid region relative to the mounting region.

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26. The head suspension of claim 25 wherein the shock limiter limits movement of the rigid region of the load beam away from the disk surface due to impact loading.

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